

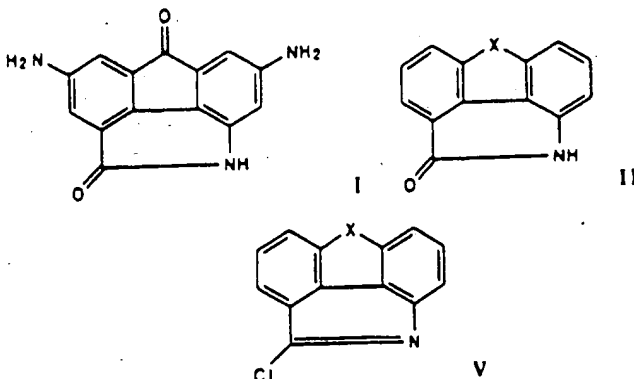
D12

XP-002087396

6001 Chemical Abstracts, Columbus, Ohio, US

Vol.: 88 (1978) March 27 No. 13Page: 505

88: 89502c **Derivatives of cyclopenta[k,l,m] phenanthridine.**  
 Dokunikhin, N. S.; Migachev, G. I.; Grekhova, N. G. (Nauchn=  
 o-Issled. Inst. Org. Poluprod. Krasitelei, Moscow, USSR). *Zh.*  
*Vses. Khim. O-va.* 1977, 22(6), 706-7 (Russ). Nitration of



4-carboxy-9-fluorenone gave 96.5% 4-carboxy-2,5,7-trinitro-9-fluorenone, which was reduced and cyclized to give cyclopenta-phenanthridine I. Diazotization of I, followed by treatment with  $\text{NaH}_2\text{PO}_2$  gave cyclopentaphenanthridinedione II (X = CO) (III). III was reduced with  $\text{N}_2\text{H}_4$  to give II (X =  $\text{CH}_2$ ) (IV). Treatment of III with  $\text{PCl}_5$  gave V (X = CO); V (X =  $\text{CH}_2$ ) was prepd. similarly from IV.

Best Available Copy

**THIS PAGE BLANK (USPTO)**

**THIS PAGE BLANK (USPTO)**